

## Teen Drivers

### THE TOPIC

JANUARY 2008

Motor vehicle crashes are the leading cause of death among 15- to 20-year olds. According to the U.S. Department of Transportation, 3,490 drivers in this age group died in motor vehicle crashes in 2006 and an additional 272,000 were injured. Drivers age 15- to 20-years old accounted for 12.9 percent of all the drivers involved in fatal crashes and 16 percent of all the drivers involved in police-reported crashes. Twenty-five percent of teen drivers killed were intoxicated. In 2002 (latest data available) the estimated economic cost of police-reported crashes involving drivers between the ages of 15 and 20 was \$40.8 billion, according to the National Highway Traffic Safety Administration (NHTSA, <http://www.nhtsa.dot.gov> ).

Among licensed drivers, young people between the ages of 15 and 20 have the highest rate of fatal crashes relative to other age groups, including the elderly. In fact, the risk of being involved in a fatal crash for teens is three times greater than for drivers age 65 to 69.

Immaturity and lack of driving experience are the two main factors leading to the high crash rate among teens. Graduated licensing laws, which include a three-phase program that allows teen drivers to develop mature driving attitudes and gain experience behind the wheel, have been successful in reducing teen motor vehicle accidents.

### RECENT DEVELOPMENTS

- **Crash Facts:** The National Highway Traffic Safety Administration (NHTSA) reports that 3,490 drivers between the ages of 15 and 20 died in motor vehicle crashes in 2006, up 0.5 percent from 3,474 in 2005 and up 3.0 percent from 3,389 in 1996. The number of drivers involved in fatal crashes age 15 to 20 totaled 7,463 in 2006, down 0.5 percent from 7,500 in 2005 and down 7.6 percent from 8,074 in 1996. Thirty-one percent of drivers age 15-20 who were killed in motor vehicle crashes in 2006 had been drinking.
- A 2005 survey sheds light on young drivers' risky behaviors behind the wheel. More than half (56 percent) of young drivers use cell phones while driving, according to an Allstate Foundation survey conducted between March and July 2005 of 1,000 people ages 15 and 17 and focus group discussions. Sixty-nine percent said that they speed to keep up with traffic and 64 percent said they speed to go through a yellow light. Forty-seven percent said that passengers sometimes distract them. About half said they believed that most crashes that involve teens result from drunk driving.
- **Graduated Drivers Licenses:** Some people question whether 16-year olds should be allowed to get a drivers license. This issue has gained some attention from a 2005 National Institute of Mental Health report that shows the part of the brain that weighs risks, makes judgments and controls impulsive behavior develops throughout the teen years and does not mature until around age 25.
- Graduated drivers license (GDL) programs are helping to reduce teen driving deaths. States began enacting GDL laws in the 1990s. The graduated license program is a three-stage license phase-in process that allows young drivers to gain experience before receiving a full-privilege license, see Background. Latest data from NHTSA show that the fatality rate for 16 to 20 year old vehicle occupants in motor vehicle crashes per 100,000

population was 27.07 in 2004, down from 27.67 in 2003 and 30.46 in 1994. The 2004 rate was the lowest since record keeping began in 1975.

- **Benefits of Graduated Drivers License Programs:** A study sponsored by State Farm Insurance Company and the federal Centers for Disease Control and Prevention found that North Carolina's GDL program reduced hospitalizations and hospital costs by more than one-third for the youngest drivers in the state. The study, conducted by researchers at the University of North Carolina at Chapel Hill, shows that in the 46 months after the state's GDL laws went into effect in 1997 hospitalizations of 16-year-old drivers fell by 37 percent and hospital costs for these drivers fell 31 percent, or \$650,000, per year. The lead author of the study says that the findings suggest that the reductions result from 16-year olds driving less, rather than from improvements in their driving skills. In addition, a reduction in the number of hospitalizations among 17-year old drivers was noted, but it was not statistically significant. A 2001 study, based on crash data, found that there had been a 57 percent drop in fatal accidents involving 16-year olds since the law went into effect.
- According to the Insurance Institute for Highway Safety (IIHS), the youngest drivers have far more crashes than older people, especially in the first months after getting their licenses. Based on a study of crashes involving 16-year olds, researchers found that not paying enough attention and not taking enough notice of surroundings are the major reasons for crashes. Researchers interviewed 16-year olds who had been in nonfatal crashes in Connecticut and found that most of them involved a single vehicle. Major reasons for at-fault collisions were failing to see another vehicle or a traffic signal, mostly because the drivers did not look thoroughly, were daydreaming or distracted by things inside and outside their vehicles. The study was published by the IIHS in January 2007.
- A study released in July 2006 found that GDL programs can reduce the incidence of fatal crashes for 16-year old drivers by an average of 11 percent. Researchers from the Johns Hopkins Bloomberg School of Public Health found that when states had comprehensive GDL programs, those with a least five of the most important elements in effect, there was a 20 percent reduction in fatal crashes involving 16-year old drivers. These elements were:
  1. A minimum age of 15 1/2 for obtaining a learners permit
  2. A waiting period after obtaining a learners permit of at least three months before applying for an intermediate license
  3. A minimum of 30 hours of supervised driving
  4. Minimum age of at least 16 years for obtaining an intermediate license
  5. Minimum age of at least 17 years for full licensing
  6. A restriction on carrying passengers.

The study was supported by NHTSA and the Centers for Disease Control and Prevention. Researchers used data from 1994-2004 from NHTSA's Fatality Analysis Reporting System and examined fatal crash data in 36 states that had GDL programs and in seven states that did not. They found that in states that had six or seven components, the fatal crash reduction was 21 percent.

- Fatality and injury crash rates for 16-year-old drivers were 20 percent lower in a state with nighttime and passenger restrictions than in a comparison jurisdiction that lacked these provisions for safer teen driving, according to a study released in June 2006 by the

AAA Foundation for Traffic Safety. For the study, the Traffic Injury Research Foundation (TIRF) compared crash rates and crash patterns of teenage drivers in one jurisdiction with nighttime and passenger restrictions during the intermediate stage of GDL with those in another jurisdiction whose GDL program did not include such restrictions. TIRF also surveyed a random sample of 500 crash-free and 500 crash-involved, newly licensed teens and their parents in each of two jurisdictions. The study found that twice as many crash-free teens reported never having violated their state's passenger restriction provision, compared with teens that had crashed.

- One key feature of GDL programs is the passenger restriction which limits the number of passengers a teen driver may have in the vehicle to eliminate distractions. Thirty-eight states and the District of Columbia have enacted these laws with various provisions regarding the ages of passengers and the number a teen driver may transport. According to a 2005 study, when teens drive other teens, they tend to drive faster than other motorists and leave less distance between their vehicles and the vehicles in front of them. They speed more frequently when there are other teens in vehicles, especially males. These findings by researchers at the National Institutes of Health and Westat were compiled from data collected at 13 sites on roads in the Washington, D.C. area, where over 3,000 passenger vehicles were observed, including 471 driven by teenagers.
- The Children's Hospital of Philadelphia and State Farm released a study in June 2007 that found that children are safer when riding in a vehicle with a teen driver who is their sibling rather than a teen driver who is not related to them. Earlier research found that children driven by teens are twice as likely to sustain crash injuries, a finding that prompted legislators in many states to enact passenger restriction laws. The new study showed that children's risk of crash injury where the teen driver is a sibling is 40 percent lower. This new finding supports the exceptions in some state laws that allow teens to drive family members only.
- **Cell Phones:** Safety experts say that using a cell phone while driving is a major distraction and is a factor in crashes, see Cell Phones and Driving paper. In July 2007 the National Highway Traffic Safety Administration and the National Center for Statistics and Analysis released the results of their National Occupant Protection Use Survey (NOPUS), which found that in 2006 5 percent of drivers used hand-held cell phones, down from 6 percent in 2005, the first decline since the survey began tracking hand-held cell phone use in 2000. With regard to young drivers, the survey found that among drivers who appear to be age 16 to 24, 8 percent were holding a phone to their ears, down from 10 percent in 2005. Only 0.7 percent of drivers in this age range appeared to be speaking with headsets, down from 1.3 percent in 2005. In 2006, 0.4 percent of these drivers appeared to be manipulating some typed of electronic device, such as a cell phone or video game, up slightly from 0.3 percent in 2005. NOPUS is a probability-based observational survey. Data on driver cell-phone use were collected at random stop signs or stoplights only while vehicles were stopped and only during daylight hours.
- According to a July 2007 USA Today snapshot of a report published by The Children's Hospital of Philadelphia and State Farm Insurance, 64 percent of teens said they would stop using cell phones while driving if their license could be taken away if they were caught. Receiving an insurance discount would deter 58 percent and 51 percent would be deterred if there was a law against it.
- To date, fifteen states (Colorado, Connecticut, Delaware, Illinois, Maine, Maryland, Minnesota, Nebraska, New Jersey, North Carolina, Rhode Island, Tennessee, Texas, Virginia and West Virginia) and Washington, D.C. have enacted laws that prohibit young

drivers from using cell phones when driving. (See State Young Driver Laws chart.) In addition, California and Washington (both effective July 1, 2008), Connecticut, New Jersey, New York, Washington, D.C. and certain localities in Illinois, Massachusetts, Michigan, New Mexico, Ohio and Pennsylvania ban all drivers from using hand-held cell phones. Also effective July 1, 2008 teenage drivers in California are prohibited from using all electronic devices such as cell phones, pagers and laptops while driving.

- In addition to the states that ban driving while using a cell phone, Washington and New Jersey have enacted laws that prohibit text messaging while driving (DWT). These laws apply to all drivers.
- **Parental Example:** A poll based on about 1,000 parents of 15-17 year olds, sponsored by the Allstate Foundation, found that parents may not be setting a good example for young drivers. The poll, published in March 2007, found that more than half of parents surveyed had not heard of, or were only vaguely aware of, graduating licensing laws. The study found that although most parents think it is important to set a good example for young people, 71 percent say they have talked on a cell phone while driving with teens in their vehicle. More than one-fourth admitted to running red lights or stop signs, or breaking another traffic law with teens in the car. (Allstate says that in a poll of teenagers conducted in 2005, almost nine in 10 said that their parents exercised the strongest influence on their driving behavior.) Other findings were that 90 percent of parents allow their children to drive between the hours of 9 pm and 6 am, when the odds of having a crash double, and 69 percent of parents permit their teens to drive in bad weather.

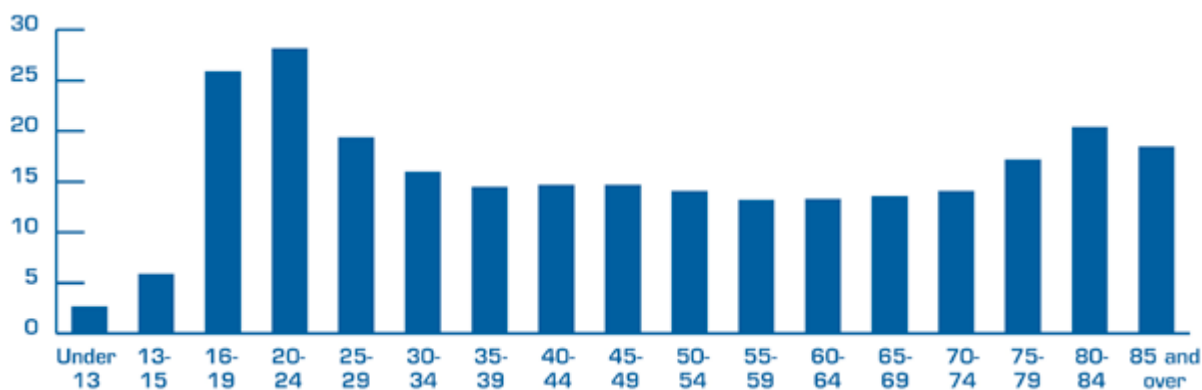
A survey released in August 2007 by Nationwide Mutual Insurance underscores the role of parental example. Among 10-to-18 year-olds, 82 percent observe their parents' driving habits at least half of the time that they are in the car. Of interest is the finding that although almost half of parents said that they drive at or below the speed limit, 80 percent of children observed their parents driving over the speed limit. More than half observed their parent multi-tasking—talking on a cell phone, adjusting the radio—or arguing with a passenger or other drivers.

- **Risky Distractions and Driving Behavior:** A survey by the Children's Hospital of Philadelphia and State Farm involving 5,700 ninth to 11th graders at 68 schools in the United States highlights the risks high school-age drivers face. Almost all respondents—93 percent—said they saw teens driving other teens and 94 percent said the passengers distracted the driver in some way. Common distractions were using cell phones, listening to loud music and heightened emotions. Half of the respondents have seen teen drivers exhibit road rage. Half reported seeing teens drive drunk. Three-quarters have witnessed teens when fatigued. One in five said they were involved in a crash as a passenger. The research report, "Driving: Through the Eyes of Teens," was published in January 2007.
- **Insurer Programs:** Insurance companies are doing their part to help reduce the number of accidents involving teen drivers by subsidizing the cost of electronic devices that parents can install in their cars to monitor the way teens drive or by offering discounts to policyholders with teens who use these devices. In addition, some insurers offer discounts to policyholders with teen drivers who earn good grades (See Background).

## **ACCIDENTS BY AGE OF DRIVERS, 2005**

Age group	Number of drivers	Percent of total	Drivers in fatal accidents	Percent of total	Drivers in all accidents	Percent of total
Under 20	9,396,000	4.7%	6,300	10.1%	2,490,000	13.5%
20–24	16,886,000	8.4	8,900	14.3	2,640,000	14.3
25–34	36,003,000	17.9	11,300	18.1	3,820,000	20.8
35–44	40,394,000	20.0	10,400	16.7	3,420,000	18.6
45–54	39,851,000	19.8	9,600	15.4	3,060,000	16.6
55–64	29,685,000	14.7	6,600	10.6	1,610,000	8.8
65–74	16,492,000	8.2	4,200	6.7	800,000	4.3
Over 74	12,793,000	6.4	5,000	8.0	560,000	3.0
<b>Total</b>	<b>201,500,000</b>	<b>100.0%</b>	<b>62,300</b>	<b>100.0%</b>	<b>18,400,000</b>	<b>100.0%</b>
Note: Percent of total columns may not add due to rounding; driver columns do not add because drivers under the age of 16 are not included.						
Source: National Safety Council.						

### MOTOR VEHICLE DEATHS PER 100,000 PERSONS BY AGE, 2006



Source: U.S. Department of Transportation, National Highway Traffic Safety Administration.

### STATE YOUNG DRIVER LAWS (1)

As of January 2008

	Graduated licensing (2)		
--	-------------------------	--	--

State	Learners permit required for a minimum period	Intermediate or provisional license required	Restrictions on night driving (3)	Passenger restrictions (4)	Driver may not operate a cell phone in learner and/or intermediate stages
Alabama	6 months	X	X	X	
Alaska	6 months	X	X	X	
Arizona	6 months*	X*	X*	X*	
Arkansas	6 months	X			
California	6 months	X	X	X	X (5)*
Colorado	12 months	X	X	X	X
Connecticut	6 months	X	X	X	X (5)
Delaware	6 months	X	X	X	X
D.C.	6 months	X	X	X	X (5)
Florida	12 months	X	X		
Georgia	12 months	X	X	X	
Hawaii	6 months	X	X	X	
Idaho	6 months	X	X	X	
Illinois	9 months	X	X	X	X
Indiana	2 months	X	X	X	
Iowa	6 months	X	X		
Kansas	6 months				
Kentucky	6 months	X	X	X	
Louisiana	6 months	X	X		
Maine	6 months	X	X	X	X
Maryland	6 months	X	X	X	X (6)
Massachusetts	6 months	X	X	X	
Michigan	6 months	X	X		
Minnesota	6 months	X			X
Mississippi	6 months	X	X		
Missouri	6 months	X	X	X	
Montana	6 months	X	X	X	
Nebraska	6 months	X	X	X	X
Nevada	6 months	X	X	X	
New Hampshire	3 months (7)	X	X	X	
New Jersey	6 months	X	X	X	X (5)

New Mexico	6 months	X	X	X	
New York	6 months (8)	X	X	X	X (5)
North Carolina	12 months	X	X	X	X (6)
North Dakota	6 months				
Ohio	6 months	X	X	X	
Oklahoma	6 months	X	X	X	
Oregon	6 months	X	X	X	X
Pennsylvania	6 months	X	X		
Rhode Island	6 months	X	X	X	X (6)
South Carolina	6 months	X	X	X	
South Dakota	6 months (7)	X	X		
Tennessee	6 months	X	X	X	X
Texas	6 months	X	X	X	X
Utah	6 months	X	X	X	
Vermont	12 months	X		X	
Virginia	9 months	X	X	X	X
Washington	6 months	X	X	X	X (5)*
West Virginia	6 months	X	X	X	X
Wisconsin	6 months	X	X	X	
Wyoming	10 days	X	X	X	

(1) Designed to aid young novice drivers between the ages of 15 and 18 gain driving experience. To date they apply only to drivers under the age of 18. All states have lower blood alcohol content laws for under-21 drivers which range from none to 0.02, in contrast with 0.08 for drivers over the age of 21 in all states.

(2) Graduated licensing as defined by the National Highway Traffic Safety Administration.

(3) Vary by state with regard to age of driver, night hours that driving is restricted, and who must accompany driver during night hours. Exceptions may be made for work, school or religious activities and emergencies.

(4) Limits the number of teenage passengers a young driver may have in the vehicle.

(5) Laws ban all drivers from using handheld cell phones.

(6) For drivers younger than 18.

(7) New Hampshire does not issue learner's permits. The minimum holding period refers to the intermediate license for 16-and 17-year-olds for the first 3 months only.

(8) Minimum holding period applies to the limited junior driver license for permit holders who pass a road test and certify 20 or more hours of practice; with some restrictions.

\*Effective July 1, 2008.

Source: Insurance Institute for Highway Safety; U.S. Department of Transportation, National Highway Traffic Safety Administration; National Conference of State Legislatures; Insurance Information Institute.

## BACKGROUND

The disproportionate number of fatal motor vehicle deaths among teens is attributed to several factors. Immaturity and lack of driving experience are believed to be the main cause. However, there are two other major contributing factors: night driving and the potentially negative effect of teen passengers. More teenagers are involved in motor vehicle crashes late in the day and at

night. In 2002, 41 percent of teenage motor vehicle deaths occurred between 9 pm and 6 am and 52 percent took place on Friday, Saturday and Sunday.

In addition to the increased risk of death from night driving, teens also have a greater chance of getting involved in an accident if passengers are present in the vehicle. Passengers can become a distraction for teen drivers which, when coupled with inexperience, can prove fatal. In the worst case scenario, teen passengers may encourage the driver to take risks such as speeding or racing. Sixty-one percent of teenage passenger deaths in 2002 occurred in crashes where other teen drivers were at the wheel.

**Graduated Drivers Licensing (GDL):** To address the high fatality rate among teenage drivers, most states have adopted one or more elements of a GDL system, which allows teenagers to gradually receive full driving privileges, (see chart). Almost every state has some form of restriction on young drivers. The three phases of GDLs are: a supervised learners period; an intermediate license, which allows unsupervised driving depending on various situations; and a full privileges license. According to the Insurance Institute for Highway Safety, all but five states (Arizona, Arkansas, Kansas, Minnesota and North Dakota) have an intermediate stage, but the systems vary. A teenager with a learners permit is required to remain in that stage for a minimum period, usually six months. A learners permit also requires that when driving, a teenager must be supervised by an adult, pass vision and knowledge tests and pass a test before receiving an intermediate license. In addition, the driver must wear a seat belt and be traffic-and-alcohol-offense free, and restricted from driving at night. An intermediate or restricted license requires a minimum of six months and restricts passengers and night-time driving. In all stages, there is zero-tolerance for drunk driving, and a requirement to be traffic-offense free.

Florida was the first state to adopt a GDL program in 1996. In South Carolina, where the GDL law went into effect in 1998, the percentage of teenagers involved in crashes fell from 14.5 percent in 1998 to 13.0 percent in 1999. Alabama's GDL law was enacted in October, 2002. By 2003, state troopers reported that crashes caused by 16-year-old drivers fell from 5,905 to 5,263; for 17-year-olds, crashes fell from 6,174 to 5,980.

GDLs have also reduced deaths among teenage drivers in New Zealand, Australia and Canada, where versions of the system exist. A 2002 study conducted in Nova Scotia concludes that crash reductions among young beginning drivers occur in both the learner and intermediate stages. This is the first long-term study to investigate the benefits of each licensing stage. The findings of the study, "Specific and Long-term Effects of Nova Scotia's Graduated Licensing Program," mark the first six months of the learner stage as the most significant period of crash reductions. For beginning drivers who got their learners permit at 16 or 17 years old, crashes declined 51 percent. During the intermediate stage, when drivers are allowed to drive unsupervised except late at night, crashes were reduced by 9 percent in the first year and 11 percent in the second year. Crash rates increased by 4 percent, however, during the first year after the drivers graduated to full license status. Nova Scotia's GDL program was adopted in 1994, before many U.S. states began adopting the system.

**Female Teen Drivers:** Girls between the ages of 16 and 19 are driving 70 percent more than 20 years ago. Meanwhile, boys in the same age group are driving 16 percent more. In the past, 16-year-old males were the highest risk drivers, but accident data from NHTSA show that 16-year-old girls are closing the gap between their accident rate and that of their male counterparts. According to the NHTSA, 16-year-old girls were involved in 175.19 motor vehicles crashes per 1,000 licensed drivers in 2000, an increase from 160.1 crashes in 1990. Meanwhile the crash rate for 16-year-old boys declined from 216.4 per 1,000 licensed drivers in 1990 to 210.3 in 2000. While the fatality rate for all teenage drivers (15 to 20 years old) fell 11 percent over the 10-year period between 1990 and 2000, the fatality rate for girls rose 4 percent over the same



period.

**Teens and Speeding:** Teen drivers have an unrealistic view of safe driving behavior, according to researchers at San Diego State University. The young drivers who were surveyed between January and December 2002 believed they were speeding if they were driving at around 90 mph, and 62 percent of the whole group confessed to being in a vehicle where drunk driving, street racing, reckless driving or other dangerous activities were engaged in. The survey questioned 2,310 Southern California teens between 15 and 18 years old. Of this group, 1,430 teens were seeking their first driver's license and 880 teens had previously committed a traffic offense.

The teen violator group considered the threshold of speeding at an average 93 mph. First time learners put the threshold at an average 88 mph. Nearly 73 percent of the teen violators said they were exposed to reckless driving, speeding, driving while intoxicated or other dangerous activities.

**Teens and Safety Belts:** In 2006, 58 percent of the 2,813 occupants of passenger vehicles age 16 to 20 who were killed in crashes were not buckled up, according to NHTSA. Teenagers are less likely to wear safety belts even when their parents do, according to a survey conducted by the IIHS released in June 2002. The report found that 46 percent of the teenagers who were dropped off at school by their parents were not wearing safety belts and in 8 percent of cases teens were using safety belts, while the adult driver was not. The survey, conducted at 12 high schools in Connecticut and Massachusetts, focused on four groups: teen drivers, teen passengers in vehicles with teen drivers, teen passengers with adult drivers and adult drivers.

The survey also found that belt use differed based on gender and age. Belt use was lower among male teen drivers than male adults, while the difference between female teen drivers and female adult drivers was negligible. Teenage passenger belt use was much lower for both males and females than adults. Only 50 percent of males and 56 percent of females riding with adult drivers were buckled up in the morning going to school. In addition, the study revealed that when a teenage driver was behind the wheel, the use among teen passengers fell to 42 percent among males and 52 percent among females. To increase seat belt use among teens, the IIHS suggests adding belt use provisions to graduated licensing systems.

**Drunk Driving:** Drunk driving is a serious offense. If a driver is convicted of drunk driving, typically his or her drivers license is revoked or suspended. A conviction for drunk driving can also result in higher insurance rates or nonrenewal of an auto insurance policy because a drunk driver represents a greater risk to the insurance company.

Underage drinking remains a factor in teenage highway fatalities. According to NHTSA, in 2006, among fatally injured drivers 15- to 20-years old, 25 percent had a blood-alcohol concentration (BAC) at or above 0.08, the level at which all states define drunk driving. This proportion has not changed in ten years, despite efforts by various organizations that have waged war against underage drinking. Mothers Against Drunk Driving (MADD) is one organization that has combated this problem for more than 20 years. It has been instrumental in organizing various campaigns to educate the public about the effects of driving while intoxicated. In addition, some insurance companies have sponsored initiatives and events that discourage underage drinking and drunk driving.

**Insurer Issues:** Rates for auto insurance for teenage drivers are always higher than for other drivers because as a group they pose a higher risk of accidents than more experienced drivers. Adding a teenager to an insurance policy can mean a 50 percent or even a 100 percent increase in the parents' insurance premium. Some insurance companies offer discounts for students with

good grades. The Good Student Discount is generally available to students who have a grade point average of a B or higher.

**Insurer programs:** Insurance companies are using new technology to help parents track teen drivers and monitor their driving. The American Family Insurance Company has supplied about 2,000 families in the United States with a video camera that alerts parents when a teen driver makes a driving error. The program includes discounts for families that use the camera, which is operated by an independent company that provides weekly reports for parents. AIG and Safeco insurance use global positioning systems (GPS) to monitor teen drivers and parents can be alerted by email, text message or phone if their children exceed preset boundaries on speeding or distance.

### **INFORMATION SOURCES:**

- The Insurance Institute for Highway Safety: <http://www.highwaysafety.org>
- The National Highway Traffic Safety Administration (U.S. Department of Transportation): <http://www.nhtsa.dot.gov>